

REMARKS

Claims 1-21, 23, 25 and 26 are pending in this application. By this Amendment, the specification and claims 1, 7, 9, 11, 21 and 23 are amended, and claims 25 and 26 are added. No new matter is added.

Applicants acknowledge the indication that claims 9, 11, 15 and 17-20 contain allowable subject matter. New independent claim 25 corresponds to allowable dependent claim 18 in independent form. Accordingly, independent claim 25 and new claim 26 dependent therefrom are believed to be allowable.

In the Office Action, claims 1-3, 5, 6, 8, 10 and 21 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 2,642,263 to Thorp. This rejection is respectfully traversed.

Independent claim 1 is amended to incorporate aspects of claim 23. In particular, independent claim 1 now recites, *inter alia*, a damped aerofoil structure manufactured by a superplastic forming process, wherein the first and second damping elements are formed from a first sheet and a second sheet, the first and second sheets being joined about their periphery.

Thorp fails to disclose a damped aerofoil manufactured by a superplastic forming process. Thorp also fails to disclose that first and second dampening elements are formed from a first and a second sheet joined about their periphery as recited in independent claim 1. Rather, to the contrary, Thorp expressly discloses at col. 2, lines 52 and 53 that first and second sheets are separate from one another.

Because Thorp fails to teach each and every feature of independent claim 1, independent claim 1 and claims dependent therefrom, including claims 2-3, 6, 8, 10 and 21, are not anticipated by Thorp. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 1 and 4 under 35 U.S.C. §102(b) over U.S. Patent No. 4,188,171 to Baskin. Additionally, claims 1, 4 and 5 are rejected under 35 U.S.C.

§102(b) over U.S. Patent No. 5,284,011 to Von Benken. These rejections are respectfully traversed.

Neither Baskin nor Von Benken relate to a damped aerofoil structure manufactured by a superplastic forming process, or teach first and second damping elements formed from a first and second sheet, the first and second sheets being joined about their periphery as recited in amended independent claim 1. Accordingly, because Baskin and Von Benken fail to teach each and every feature of independent claim 1, these references fail to anticipate independent claim 1 or claims dependent therefrom. Withdrawal of the rejections is respectfully requested.

In the Office Action, claims 7, 12-14, 16 and 23 are rejected under 35 U.S.C. §103(a) over Thorp in view of U.S. Patent No. 6,524,074 to Farrar. This rejection is respectfully traversed.

Features of claim 23 have been incorporated into independent claim 1. As discussed above, independent claim 1 as amended, recites, *inter alia*, a damped aerofoil structure manufactured by a superplastic forming process, and wherein first and second damping elements are formed from a first sheet and a second sheet, the first and second sheets being joined about the periphery.

Thorp is discussed above. Farrar fails to overcome the deficiencies of Thorp with respect to independent claim 1. In particular, Farrar does not disclose a damped aerofoil structure, or first and second dampening elements formed from a first and second sheet joined about their periphery. Moreover, Farrar does not disclose a method of superplastic forming an aerofoil in which two dampening elements are bonded about their periphery. Thus, contrary to the assertions in the Office Action, Farrar does not teach that damping elements are formed of sheets and joined about their periphery.

In particular, the passage on col. 3, line 66 - col. 4, line 6 of Farrar relied upon in the Office Action merely states that metallic sheet 50 may be diffusion bondable to metallic sheets 46 and 48. However, sheets 46, 48 form the first and second opposing walls. Because Farrar provides only a single dampening element, sheet 50, even if combined with Thorp, the combination would not have taught or suggest to one of ordinary skill in the art to provide first and second dampening elements as recited in claim 1 that are joined or bonded to one another about their periphery. Moreover, with respect to claim 23, the combination fails to teach or suggest that first and second damping sheets are joined about their periphery "but otherwise substantially separated from each other."

The claimed structure can result in manufacturing advantages due to the provision of the sealed periphery at the interface between the first and second dampening elements prior to superplastic deformation. This sealed periphery ensures that the pair of sheets cannot be prised apart during the manufacturing process, so that the final damping elements are in proper frictional contact. This is essential to the proper manufacture of the blade, and quite different from general manufacturing processes described with relation to superplastic formation of fan blades, wherein the cavity is formed between elements that is then inflated to form the blade.

It is thus respectfully submitted that the subject matter of independent claim 1 would not have been obvious to one of ordinary skill in the art based on the teachings of Thorp in view of Farrar. Accordingly, independent claim 1 and claims dependent therefrom define over the applied prior art. Withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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